

Appl. No.: 09/868,880

Response to Office communication dated: 11/25/2003

Attorney Docket: DEXNON/110/PC/US

REMARKS

New claims 21-23 have been added. Claims 15, 16, 19, and 20 have been cancelled without prejudice to filing in a later application. Claim 1 has been amended. After entry of this amendment claims 1-14, 17, 18, and 21-23 will be pending in the application.

The amendment to claim 1 is supported by the specification in the Examples. e.g. Example 1 shows the untreated hydroentangled needlepunched nonwoven and cellulosic web complex has a first elongation. The treated complex has a second elongation that is greater than the elongation of the untreated complex (first elongation). Examples 2-4 illustrate similar results.

New claims 21-24 are fully supported by the application as filed and add no new matter. Applicants note that the treating agent range of 3% to 4.9% is supported by the application as filed for at least the reason that, in the context of this invention and in light of Applicant's disclosure of a treating agent range of 3-7% along with specific embodiments of 3.5-6.5% and 4-5.5%, persons skilled in the art would consider a 3-4.9% range to be part of applicant's invention. See In re Wertheim, 541 F.2d 257, 262, 191 USPQ 90, 96 (CCPA 1976).

Claim Rejection Under 35 U.S.C. §112

Claim 20 has been rejected under 35 U.S.C. §112, ¶ 1 and 2. Applicant notes that "grain" is explicitly defined in the specification. However, to expedite prosecution claim 20 has been cancelled without prejudice to filing in a later application. As such, any proper rejection of claim 20 under 35 U.S.C. §112 ¶ 1 or 2 has been obviated.

Claim Rejections Under 35 U.S.C. §102

Claims 1, 3, and 12-14 have been rejected under 35 U.S.C. §102(b) as being anticipated by United States Patent No. 4,070,519 to Lefkowitz. Applicants respectfully

note that the proper standard under 35 U.S.C. §102 for finding anticipation is that the prior art must disclose each and every limitation found in the claims, either expressly or inherently. Rockwell International Corp. v. United States, 147 F.3d 1358, 1363 (Fed. Cir. 1998); Electro Med System S.A. v. Cooper Life Sciences, 34 F.3d 1048, 1052 (Fed. Cir. 1994). Furthermore, the omission of any claimed element no matter how insubstantial is grounds for traversing a rejection based on Section 102. Connell v. Sears Roebuck & Co., 772 F.2d 1542 (Fed. Cir. 1983).

Amended claim 1 recites:

A nonwoven composite comprising a first fibrous layer in the form of a nonwoven web to which a second fibrous layer is joined by fibre entanglement to form an untreated composite having a first elongation and further comprising at least one textile-treating agent applied to the untreated composite, said textile-treating agent selected from silicones, derivatives of silicones and quaternary ammonium compounds, the treating agent comprising an active-ingredient level of at least 3% by weight of the fibres in the untreated composite to form the nonwoven composite having a second elongation greater than the first elongation.

Thus, Applicant's claim 1 recites in one pertinent part that the nonwoven composite with applied treating agent has an elongation that is greater than the elongation of the untreated composite without treating agent. This effect is clearly disclosed in Applicant's examples.

The Office communication asserts that the silicone resin disclosed in the Lefkowitz reference is anticipatory of Applicant's treating agent. Applicants respectfully draw the Examiner's attention to columns 5-6 of the Lefkowitz et al. reference. Lefkowitz is clear that addition of the resin to the fabric "is **needed** to further **bind and anchor** the...batt...to the underlayer". Column 5, lines 62-3, with bolding added. In addition, Lefkowitz contemplates ensuring that the layers are **bound together** through drying or curing of the resin. Column 6, lines 25-50. Thus, the silicone resin material of Lefkowitz is taught to adhere or bind the fibrous batt. Therefore the resin material of Lefkowitz must REDUCE elongation of that treated batt as compared to the untreated batt. Arguendo, it is clear that the silicone resin materials disclosed in Lefkowitz would not result in a resin treated composite having an elongation greater than the elongation of the same entangled

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composite without the resin treatment. As such, a proper rejection under 35 U.S.C. §102 cannot be made. Applicant respectfully traverses this rejection and asserts that claims 1, 3, and 12-14 are patentable for at least the above reasons.

Claim Rejection Under 35 U.S.C. §102/103

Claim 20 has been alternatively rejected under 35 U.S.C. §102/103. Claim 20 has been cancelled without prejudice to filing in a later application. As such, any proper rejection of claim 20 under 35 U.S.C. §102/103 has been obviated.

Claim Rejection Under 35 U.S.C. §103

Claims 1, 2, 4-14, and 20 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Homonoff et al. (EP 557,678) in view of Nohr et al. (U.S. Patent No. 4,976,788).

As stated in MPEP §2143, to establish a *prima facie* case of obviousness three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine the reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

Applicants respectfully note that the following remarks do not invoke the holdings or reasoning of In re Keller, 642 F.2d 413 (CCPA 1981) and In re Merck & Co, 800 F.2d 1091 (Fed. Cir. 1986) in supporting an examiner's statement that the references of Homonoff and Nohr are being attacked individually. To clarify this point for the Examiner, the Applicants are clearly asserting that Homonoff and Nohr must be read, not in isolation, but for what they fairly teach as a whole.

All Claimed Elements Not Present

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When even one claim limitation is not found in the combination of prior art, a rejection under 35 U.S.C. §103 is improper. In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). The teachings and suggestions of the Homonoff and Nohr references, singly or in combination, simply do not contain all the elements of the rejected claims.

Amended claim 1 recites, in part, "a first fibrous layer in the form of a nonwoven web to which a second fibrous layer is joined by fibre entanglement to form an untreated composite having a first elongation and ...at least one textile-treating agent applied to the untreated composite...to form a treated composite having a second elongation greater than the first elongation."

As admitted by the Examiner, Homonoff et al. does not disclose adding a textile-treating agent to the Homonoff et al. fabric.

The Office communication asserts:

Nohr et al disclose the inclusion of polysiloxane in a nonwoven fabric used in molding substrates in an amount of 0.1 to 10% by weight can improve the properties of the fabric (column 4, lines 1-10). It would have been obvious to a person having ordinary skill in the art at the time of the invention to include polysiloxane treating agent into the fabric of Homonoff et al in order to give the fabric self-lubricating properties and increase resistance to wear, as taught by Nohr et al.

Column 4, lines 1-10 of the Nohr reference refers only to Canadian Patent No. 1,049,682 to Duncan et al (CA '682). A copy of this Canadian patent is enclosed. The CA '682 reference explicitly teaches the mixing of a carboxyfunctional siloxane INTO a thermoplastic resin to form a polymer feedstock. See page 2, lines 22-24 therein. The CA '682 reference does not teach or suggest that the carboxyfunctional siloxane material can be applied discretely to a previously produced article or product. Thus, it is not clear how the carboxyfunctional siloxane material of the CA '682 reference can be removed from the thermoplastic polymer with which it is mixed and applied discretely to "the fabric of Homonoff" as asserted in the Office communication. Claims 1, 2, 4-14, and 20 are not obvious over the Homonoff and Nohr references, separately or in combination, and are patentable for at least this reason.

The CA '682 reference teaches that the carboxyfunctional siloxane -thermoplastic polymer feedstock can be used to make "bearings, tape cartridges and cassettes, phonograph records, toys and containers." (page 1, lines 3-4) or "articles or products having self-lubricating properties" (page 2, lines 2-3) or products or articles having increased resistance to wear" (page 2, lines 4-5) or molded parts (page 2, lines 11-13 or molded closures such as a bottle cap (Example 1, page 6, line 3-5). The CA '682 reference does not teach or suggest that the polymer feedstock therein can be used to form nonwoven materials. The Office communication asserts that "Nohr et al disclose the inclusion of polysiloxane in a nonwoven fabric . . ." Applicant respectfully traverses this assertion and requests that the Examiner indicate where the CA '682 reference makes this disclosure. Claims 1, 2, 4-14, and 20 are not obvious over the Homonoff and Nohr references, separately or in combination, and are patentable for at least this additional reason.

The References Teach Away From Each Other

It is a well-established "general rule" that references that teach away cannot serve to create a prima facie case of obviousness. In re Gurley, 27 F.3d 551, 553, 31 USPQ 2d 1131, 1132 (Fed Cir. 1994). A "reference will teach away if it suggests that the line of development flowing from the reference's disclosure is unlikely to be productive of the result sought by the Applicant." Winner v. Wang, 202 F.3d 1340 (Fed Cir. 2000) citing Gurley at 553.

The Homonoff reference is directed to the production of a composite material comprised of a stretched, stabilized, spunbonded base web hydroentangled to fibrous material.

The CA '682 reference teaches that the carboxyfunctional siloxane-thermoplastic polymer feedstock can be used to make molded articles or products such as bearings, tape cartridges and cassettes, phonograph records, toys, containers and bottle caps. The CA '682 reference does not teach or suggest that the carboxyfunctional siloxane material can be applied discretely to a previously produced article or product. Thus, it is not clear why

a person having ordinary skill in the art at the time of the invention would remove the carboxyfunctional siloxane material of the CA '682 reference from the thermoplastic polymer with which it is chemically combined and attempt to apply the carboxyfunctional siloxane material as a discrete material over a previously formed nonwoven fabric. Claims 1, 2, 4-14, and 20 are not obvious over the Homonoff and Nohr references, separately or in combination, and are patentable for at least this additional reason.

There Is No Expectation Of Success In Making The Proposed Combination

Obviousness does not require absolute predictability, however at least some degree of predictability is required. In discussing predictability, the courts have recognized the general unpredictability of the chemical arts. "In the field of chemistry generally, there may be times when the well-known unpredictability of chemical reactions will alone be enough to create reasonable doubt as to the accuracy of a particularly broad statement put forward as enabling support for a claim. In re Marzocchi, 169 USPQ 367, 368-370 (CCPA 1971). "Many compounds have a known relationship but are not equivalents for substitution in different reactions. A mere relationship is an insufficient basis for the necessary predictability of success to sustain a rejection under section 103." In re Mercier, 185 USPQ 774, 779 (CCPA 1975). Evidence showing there was no reasonable expectation of success may support a conclusion of nonobviousness. MPEP §2143.02 citing In re Rinehart, 189 USPQ 143 (CCPA 1976).

A person of ordinary skill in the art is careful to extrapolate from references within the chemical arts. The CA '682 reference is fairly limited to mixing a carboxyfunctional siloxane material to a thermoplastic polymer resin to form a polymeric feedstock for subsequent molding operations. There is no expectation of achieving any beneficial result if the carboxyfunctional siloxane material disclosed in the CA '682 reference is applied as a discrete material to coat or treat a preformed web material. Claims 1, 2, 4-14, and 20 are not obvious over the Homonoff and Nohr references, separately or in combination, and are patentable for at least this additional reason.

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The Nohr et al Reference Generally

The line of development flowing from the Nohr disclosure is unmistakably clear. Nohr et al. is directed toward a "method of cleaning melt-processing equipment with a thermoplastic polyolefin and a bifunctional siloxane". See Nohr et al. at, for example, the Title, the Abstract, the Summary of the Invention and the Detailed Description of the Invention. Nohr teaches incorporating a polysiloxane agent into a polymer composition for the sole purpose of cleaning processing equipment. The Nohr reference does not appear to disclose any use for the siloxane-polymer mixture after the melt processing equipment is cleaned. In fact, the Nohr polymer appears to be limited to a separate cleaning step wherein the Nohr polymer is introduced into the processor as a cleaning agent. Nohr, column 16, lines 24-27. Nohr does not teach or suggest that the siloxane material can be used other than as a constituent of a base polymer composition. Claims 1, 2, 4-14, and 20 are not obvious over the Homonoff, CA '682 and/or Nohr references, separately or in combination, and are patentable for at least the above reasons.

Rejection of Claims 17 and 18

Claims 17 and 18 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Homonoff et al. in view of Nohr et al. in further view of Spengler et al. (U.S. Patent No. 5,709,925). Claims 17 and 18 depend either directly or indirectly on claim 1. As such, claims 17 and 18 are patentable for at least the reasons discussed above.

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In summary, Applicants have addressed each of the rejections within the present Office Action. It is believed the application now stands in condition for allowance, and prompt favorable action thereon is earnestly solicited.

Respectfully submitted,

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